

Appl. No.: 10/820,244
Amdt. dated June 28, 2007
Reply to Office Action of May 22, 2007

This listing of claims will replace all prior versions and listings of claims in the application.

Claim Listing:

1. (previously presented) A method for determining the mass of portioned units of active substances, in particular capsules, tablets or dragees, comprising leading the units of active substances through a microwave field generated by a microwave resonator, determining the mass M of each portioned unit from the displacement A of the resonant frequency and the broadening B of the resonance curve caused by presence of each portioned unit in the microwave field, with compensation for the influence of moisture, by means of a mathematical combination of the two measured variables, which comprises a linear expansion of M with respect to A having first and second coefficients k₁, k₂, each of the coefficients k₁, k₂ representing a linear expansion with respect to F, where F=B/A, and sorting the portioned units according to their mass M.
2. (previously presented) The method as claimed in claim 1, wherein the mass is determined with the aid of the relationship

$$M = k_1 * (1 + k_2 * F) * A$$

where k₁ and k₂ are constants, of which k₂ depends on the unit of active substances examined and F=B/A.

3. (previously presented) The method as claimed in claim 1, wherein the moisture is additionally determined.
4. (previously presented) The method for determining the mass of portioned units of active substances as claimed in claim 1, said active substances comprise a casing and

the active substance contained therein, wherein the mass of the casing without active substance and then the total mass of the unit of active substances following filling with the active substance are determined.

5. (previously presented) The method as claimed in claim 4, wherein the empty casings are sorted by mass and are then filled batchwise and the total mass is determined.

6. (previously presented) The method as claimed in claim 4, wherein the mass of the casing is determined immediately before filling.

7. (previously presented) The method as claimed claim 1, wherein microwaves with frequencies from 1 to 60 GHz, in particular 2 to 30 GHz, are used.

8. (currently amended) An apparatus for determining the mass of portioned units of active substances, in particular capsules, tablets or dragees, which comprises a microwave generator, a second microwave resonator arranged to contain a microwave field generated by said microwave generator, a device for guiding the units of active substances through the microwave resonator, measuring and evaluation electronics for determining the mass from the displacement A of the resonant frequency and the broadening B of the resonance curve caused by presence of each unit in the microwave field, a device for removing individual ~~of~~ the units of the active substances having a mass outside a predetermined range, and a first ~~second~~ microwave resonator with measuring and evaluation electronics for determining the mass of the units ~~of~~ active substances before filling they are filled with active substances.

9. (previously presented) The apparatus as claimed in claim 8, wherein the devices for guiding the units of active substances have a tube, through which the units of active substances are conveyed by an air stream.

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10. (previously presented) The apparatus as claimed in claim 8, wherein the devices for guiding the units of active substances have an endless belt with depressions, into which the units of active substances are inserted.

11. (previously presented) The apparatus as claimed in claim 8, wherein the devices for guiding the units of active substances have a circular disk, on the circumference of which the units of active substances are held firmly with the aid of vacuum.

12. (previously presented) The apparatus as claimed in claim 10, wherein devices are provided for determining a mass value of the carrying device for the units of active substances.

13. (canceled)

14. (previously presented) The method as claimed in claim 2, wherein the moisture is additionally determined.

15. (previously presented) The method for determining the mass of portioned units of active substances as claimed in claim 2, said active substances comprise a casing and the active substance contained therein, wherein the mass of the casing without active substance and then the total mass of the unit of active substances following filling with the active substance are determined.

16. (previously presented) The method for determining the mass of portioned units of active substances as claimed in claim 3, said active substances comprise a casing and the active substance contained therein, wherein the mass of the casing without active substance and then the total mass of the unit of active substances following filling with the active substance are determined.

17. (canceled)

18. (previously presented) An apparatus for determining the mass of portioned units of active substances, in particular capsules, tablets or dragees, which comprises a microwave generator arranged to generate a microwave field in a microwave resonator, a device for guiding the units of active substances through the microwave resonator, measuring and evaluation electronics for determining the mass from the displacement A of the resonant frequency and the broadening B of the resonance curve caused by presence of each portioned unit in the microwave field, and a device for removing individual of the units of active substances having a mass outside a predetermined range, wherein the device for guiding the units of active substances have an endless belt with depressions, into which the units of active substances are inserted.

19. (previously presented) An apparatus for determining the mass of portioned units of active substances, in particular capsules, tablets or dragees, which comprises a microwave generator arranged to generate a microwave field in a microwave resonator, a device for guiding the units of active substances through the microwave resonator, measuring and evaluation electronics for determining the mass from the displacement A of the resonant frequency and the broadening B of the resonance curve caused by presence of each portioned unit in the microwave field, and a device for removing individual of the units of active substances having a mass outside a predetermined range, wherein the device for guiding units of active substances have a circular disk, on the circumference of which the units of active substances are held firmly with the aid of vacuum.

20. (previously presented) The apparatus as claimed in claim 11, wherein devices are provided for determining a mass value of the carrying device for the units of active substances.